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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,809	02/08/2005	Satoshi Ohkawa	265519US2PCT	1566
22850	7590	05/06/2009		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER BLOOM, NATHAN J	
			ART UNIT	PAPER NUMBER
			2624	
			NOTIFICATION DATE	DELIVERY MODE
			05/06/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/523,809	<b>Applicant(s)</b> OHKAWA ET AL.	
	<b>Examiner</b> NATHAN BLOOM	<b>Art Unit</b> 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 34-82 is/are pending in the application.
- 4a) Of the above claim(s) 41-46, 54-59 and 68-82 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 34-40, 47-53 and 60-67 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/26/2009 has been entered.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 34-40, 47-53, and 60-67 with regards to the current amendment of the independent claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1. Claims 47-53 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent<sup>1</sup> and recent Federal Circuit

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<sup>1</sup> *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

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decisions<sup>2</sup> indicate that a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. For example claim 47 defines a method of filtering, reducing image resolution, and correcting gamma of the image. However, the recited language does not require that the transformation (in this case the selection) of the data be performed by a statutory device, system, or apparatus thus does not meet the machine requirement. Furthermore, the claimed process does not meet the transformation requirement: no significant transformation of a real world object or data representing a real world object is performed, nor does the claim meet the transformation requirement for data further requires that the result or a response be output in such a manner that a user is made aware of the output (such as an alarm related to certain criteria or display of the image data – Note: List does not encompass all possibilities.).

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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<sup>2</sup> *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

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(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 34, 37-40, 47, 50-53, 60, and 63-67 is rejected under 35 U.S.C. 102(A OR E) as being anticipated by Kawamoto et al. (US 2002/0196470).

Instant claim 34: An image data processing apparatus comprising:

an image data storing unit that stores image data; [*Kawamoto has taught the storage of image data in paragraph 0069 (MEM).*]

a spatial filter processing unit that applies spatial filter [*MTF correction filtering process (paragraph 0112).*] processing, in which a dynamic range for output is set wider than a dynamic range for input, to the image data stored in the image data storing unit by increasing the number of bits per pixel [*Increased from  $p$  to  $q$ .*], while maintaining image resolution [ *$m$  (dpi) is changed in the next step*]; [*Paragraphs 0101-0109*]

a resolution increase processing unit that applies resolution conversion processing for converting a present resolution into a resolution higher than the present resolution to the image data after the spatial filter processing by the spatial filter processing unit while returning the bits per pixel to its value prior to processing by the spatial filter processing unit; [*Paragraphs 0111-0114, MTF (spatial filtering) converts  $p$  bits to  $q$  bits and then the resolution processing increased  $m$  dip to  $n$  dpi then reduces  $q$  bits to  $p$  bits ( $q > p$ ,  $n > m$ ).*]

a gamma correction unit that applies gamma correction processing to the image data after the resolution conversion processing by the resolution increase processing unit; and a [*Paragraph 0115.*]

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transmitting unit that sends the image data after the gamma correction processing by the gamma correction unit to an external apparatus. [*Paragraph 0106 – output image sent to printer.*]

Instant claim 37: The image data processing apparatus according to claim 34, further comprising a format converting unit that converts the image data to be sent by the transmitting unit into a general-purpose format that can be inspected in the external apparatus. [*Paragraphs 0120 and 0123 have taught the outputting of the image to a general output printer (the language implies a generic format).*]

Instant claim 38: The image data processing apparatus according to claim 34, wherein the resolution increase processing unit performs the resolution conversion processing only for a main scanning direction. [*Paragraph 0143*]

Instant claim 39: The image data processing apparatus according to claim 34, wherein the resolution increase processing unit performs resolution conversion processing for converting a resolution into a resolution obtained by multiplying the present resolution by an integer equal to or larger than two. [*Kawamoto has taught the increase of the resolution by at least two (paragraph 0132).*]

Instant claim 40: The image data processing apparatus according to claim 34, wherein the resolution increase processing unit performs resolution conversion processing for converting

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image data with a resolution of 600 dpi into image data with a resolution of 1200 dpi.

[*Paragraphs 0102-0104.*]

Instant claims 47, 50-53, 60, and 63-67: As per the rejection above, Kawamoto has taught the apparatus (computer, scanner, and printer running stored program) and the corresponding method that it performs.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 35-36, 48-49, and 61-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamoto as applied to claim 34, and in further view of Natarajan (US 2002/0009145).

Instant claim 35: The image data processing apparatus according to claim 34, further comprising a resolution reduction processing unit that applies resolution conversion processing for converting a present pixel density into a pixel density lower than the present pixel density to the image data after the processing by the gamma correction unit. [*Kawamoto has taught the processing and output of an image to an external device, but has not taught the resolution*

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*reduction after the gamma correction unit. However, Natarajan states in paragraph 0069 a well known process of reducing the resolution of an image to reduce the processing time and power (also reduces required bandwidth of image data as was well known in the art) of image processing steps proceeding the reduction of resolution. It would have been obvious to one of ordinary skill in the art to modify the teaching of Kawamoto with the resolution reduction taught by Natarajan to reduce the processing time and power required to transmit the data.]*

Instant claim 36: The image data processing apparatus according to claim 35, wherein the resolution reduction processing unit converts a resolution of the image data into a resolution before the resolution conversion processing by the resolution increase processing unit. *[As per the rejection above, it would have been obvious to reduce the resolution of the image data prior to image processing in order to reduce processing time and power as taught by Natarajan.]*

Instant claims 48-49 and 61-62: As per the rejection above, Kawamoto in view of Natarajan have taught the apparatus (computer, scanner, and printer running stored program) and the corresponding method that it performs.

### ***Contact Information***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Bloom whose telephone number is 571-272-9321. The examiner can normally be reached on Monday through Friday from 8:30 am to 5:00 pm (EST).



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella, can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Matthew C Bella/

Supervisory Patent Examiner, Art Unit 2624